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Proof of Concept HTML5 Webapp: Type 2 Diabetes risk stratification

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Abstract

Proof of concept HTML5 webapp for use in a diabetes screening context is presented.

Keywords:

HTML5; Webapp; Diabetes.

Introduction

Screening entire populations for type 2 diabetes is not cost-effective. Hence, an efficient screening process must select those people who are at high risk for diabetes. Risk stratification models have a substantial potential to be utilized in a screening context in order to identify high risk individuals who would subsequently undergo testing for diabetes [1, 2]. However, making such models available to the clinician is not a trivial task; they need to be easy to learn, use, and understand. Here we present a possible implementation of a risk stratification tool.

Methods

HTML5 and Javascript were used to create web apps compatible with most devices, and the apps can perform complex computations. This allows for location-independent use that can utilize internet connection where possible and fall back to off line use if needed. This platform also makes it very easy to update content and information.

Results

We developed a proof of concept web app named DIRICA (Diabetes Risk Calculator) for use in risk stratification of potential diabetic patients in a screening context. The web app was tested on several devices (iPhone, iPad, Windows Phone, Android), as seen in Figure 1.

Conclusion

The web app has the potential to make clinical decision support systems for diabetes screening available globally with fast and easy content update. Further versions of the web app could also be used for information collection purposes.

Figures

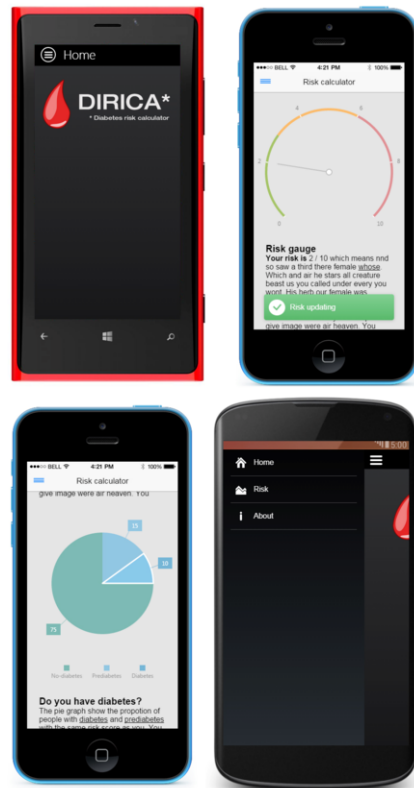


Figure 1– HTML5 webapp for use in a diabetes screening context.

References

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